INSTRON®

The difference is measurable®

3400 SERIES SYSTEM RETROFITS

Legacy Floor Model System Upgrades and Modernization

3400 Series system retrofits allow older legacy Instron electromechanical floor model universal testing machines to be upgraded with the latest control electronics and testing software so you can enjoy the latest in testing technology. Instron's universal testing machines are built to provide decades of reliable and repeatable test results. The comprehensive retrofit upgrade is a cost-effective way to extend the life of your legacy machinery, prevent unexpected downtime, and enjoy the latest in testing software and features.



FEATURES AND BENEFITS

A retrofit upgrade breathes fresh life into a wide variety of legacy table model systems from 100 kN to 250 kN and provides them with the following benefits:

- **System Life Extension:** Rejuvenates your system and extends its life.
- **Downtime Prevention:** A comprehensive replacement of vulnerable and worn components and electronics prevents unplanned downtime.
- **Supportability:** Upgrades your system with fully-supported electronics and mechanical components.
- **3400 Architecture:** Provides full access to latest Bluehill® Universal software and platform testing features.
- **Lab Uniformity:** Simplify operator training by upgrading all your machines to run on Bluehill Universal software and 3400 Series controls.
- **Accessory Compatibility:** Full compatibility with latest software and accessories. Backwards compatible with most extensometers, load cells, and accessories.

3400 UPGRADE FEATURES

- **Operator Protect:** Instron's patent-pending Operator Protect system architecture is an intelligent workflow that keeps equipment and operators safer by controlling system status from setup to test completion.
- **Safety Coaching:** 3400 Series systems provide clear visual feedback regarding system status at all times. Users will easily understand when the system is in a safe setup mode, and are clearly reminded to exit the test space once safety limits are removed.
- **Collision Mitigation:** Reduce damage to equipment and delicate specimens by stopping the crosshead if force is detected upon return or during a jog.
- **Smart-Close Air Kit (optional):** Finger pinch hazards from pneumatic grips are reduced through lower grip closing pressure and restricted speed during the setup phase of your test.
- **3400 Operator Panel:** The all-new operator panel includes LED status indicators for start, stop, jog, and return keys.

NEW & REPLACED COMPONENTS

- 3400 Series control electronics
- Robust sheet metal electronics enclosure
- 3400 operator panel
- Maintenance-free brushless AC servomotor
- Speed sensor
- Power amplifier
- Drive belt
- E-stop button
- Indicator panel
- Smart-close air kit (optional add-on)

UPGRADE PROCESS

- Site survey conducted to assess viability of system upgrade
- Retrofit package installed on-site by Instron Field Service Engineer in 1-2 days
- System calibration and training provided
- Availability of Retrofit replacement parts and service guaranteed for 10 years

RETROFIT CONTROL ELECTRONICS

To save critical floor space, the retrofit's control electronics can be flexibly relocated to either side of the machine.** Its robust sheet metal enclosure allows it to also serve as a monitor stand.

**Distance of retrofit controller box from the machine is limited by 2.9 m (114 in) cable length



FRAMES ELIGIBLE FOR 3400 SYSTEM RETROFIT

Model	Capacity (kN)	Support Phase	Manufacturing Period
3382	100	3	2002 - 2019
3382A	100	3	2019 - 2022
3384	150	3	2002 - 2010
3385H	150	3	2002 - 2010

Notes:

1. Additional unlisted models can be upgraded upon request. Please contact Instron for support.
2. System speed, compliance, and general operating specifications are limited by the system being upgraded and the strain and load equipment utilized.

Data Acquisition Rate at the PC:

Up to 1 kHz simultaneous on force, displacement, and strain channels.

Load Measurement Accuracy:

±0.5% of reading down to 1/200th of load cell capacity.

±1.0% of reading down to 1/500th of load cell capacity.

Displacement Measurement Accuracy:

±0.02 mm or 0.15% of displacement (whichever is greater).

Testing Speed Accuracy:

(Zero or constant load) ±0.2% of set speed.

Single Phase Voltage:

100, 120, 220, or 240 VAC ±10%, 47 to 63 Hz.

Operating Temperature:

+5 to +40 °C (+41 to +104 °F)

Storage Temperature:

-25 to +55 °C (-13 to +131 °F)

Ingress Protection (IP) Rating:

IP 2X. Protective measures may be required if excessive dust, corrosive fumes, electromagnetic fields, or hazardous conditions are encountered.

Humidity Range:

+10 to +90%, non-condensing at 20 °C

INSTRON

Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646

Instron is a registered trademark of Illinois Tool Works Inc. (ITW). Other names, logos, icons and marks identifying Instron products and services referenced herein are trademarks of ITW and may not be used without the prior written permission of ITW. Other product and company names listed are trademarks or trade names of their respective companies. Copyright © 2026 Illinois Tool Works Inc. All rights reserved. All of the specifications shown in this document are subject to change without notice.